Criminal Justice Research Center

Research Bulletin

Virginia Incident-Based Crime Reporting

by
Debbie Roberts, B.Sci.
Research Data Analyst

Since 2000 Virginia has been one of only 6 states in the nation to report 100% of state crime data to the federal Uniform Crime Reporting (UCR) system in incident-based format. But just what is incident-based crime reporting and how does it differ from the traditional UCR summary reporting?

Uniform Crime Reporting

UCR is a city, county, state and Federal law enforcement program that provides a standardized, nationwide view of crime based on data submitted by law enforcement agencies throughout the country. Crime data is submitted either through a state UCR program or directly to the national UCR program which is administered by the Federal Bureau of Investigation (FBI). Since its inception in the 1930s UCR data has been used in law enforcement administration, operation, and management as well as by legislators, government agencies, the academic community and the public to understand the levels of and nature of crime in the United States.

Participation in the UCR system is voluntary. Virginia participation in the UCR system was mandated by state law in 1975 when the Virginia Department of State Police was designated as the repository of UCR data from local law enforcement agencies. State Police would in turn submit locality-level UCR data to the FBI on a monthly basis as Virginia's contribution to the national UCR system.

UCR Summary Reporting

Up until 1999 Virginia law enforcement agencies contributed crime data to the state UCR system in a form called summary format. UCR summary data consisted of aggregate counts of offenses known to police and arrests. An offense did not have to result in an arrest to be recorded in the UCR system.

Offenses Known to Police:
The number and kind of criminal acts that are reported to police. An offense can be reported to the police without an arrest occurring. Offense rate is an indicator of criminal victimization.

Arrests:
Arrests are primarily a measure of police activity as it relates to crime. UCR arrest reports consist of age/sex/race of arrestees and the offenses for which arrests are made. Arrest offenses cannot be compared to "offenses known to police" because several persons could be arrested for the same offense or the arrest of one person may solve several offenses.

UCR summary offenses were classified into two groups: Part I and Part II. Part I offenses were defined as the most serious and/or most frequently reported offenses that are the best indicators of crime:

UCR Part I Offenses and Arrests
Criminal Homicide
Forcible Rape
Robbery
Aggravated Assault
Burglary/Breaking and Entering
Larceny
Motor Vehicle Theft
Arson

Limited detail about each Part I offense, such as type of weapon used in a robbery or aggravated assault and class of vehicle stolen in a motor vehicle theft, was also recorded. Detailed information on victims of criminal homicide was recorded in the UCR Supplemental Homicide Reports. This supplemental information included demographics of

the homicide victim, the relationship of the homicide victim to the offender (if known), and the weapon used in the crime.

Part II UCR offenses were defined as all other crime classifications outside of those defined as Part I offenses. Part II offenses were recorded in the UCR summary system only if an arrest occurred. Aggregate arrest offense counts and demographic information on arrestees was all that was recorded for Part II arrest offenses:

UCR Part II Arrest Offenses
Other Assaults
Forgery & Counterfeiting
False Pretenses/Swindle/Confidence Game
Embezzlement
Stolen Property Offenses
Destruction/Damage/Vandalism of Property
Weapon Law Violations
Prostitution & Commercialized Vice
Sex Offenses (except rape and prostitution)
Narcotic Drug Laws (2 offenses)
Gambling
Offenses Against The Family
Driving Under the Influence
Liquor Law Violations
Public Drunkeness
Disorderly Conduct
All Other Offenses (except traffic)
Curfew/Loitering
Runaway, Juvenile

National UCR guidelines provided general descriptions for each Part I and Part II offense and it was at the discretion of the reporting agency to identify the specific local and state violations that fell under the national UCR offense definitions.

What made the UCR summary recording truly a "summary" of crime was the Hierarchy Rule. The UCR Hierarchy rule stated that only the most serious offense in a criminal incident was to be reported. Offenses were defined as most-to-least serious in the following order: Criminal Homicide, Forcible Rape, Robbery, Aggravated Assault, Burglary, Larceny, and Motor Vehicle Theft (Arson was not subject to the Hierarchy rule). For example, in an incident where an offender robbed a bank, killed a bank teller with a stolen weapon, then stole an automobile to get away, the only offense in this incident that would be recorded in the summary system would be the most serious

offense, criminal homicide. That is because the primary purpose of UCR summary data was to count and characterize arrestees and to count only the most serious offenses known to police (the Hierarchy rule does not apply to arrests reported in the summary system, only offenses). It was difficult to characterize crimes reported in the summary system because criminal offenses were reported in the aggregate and because of limited detail available for the offenses.

Incident-Based Reporting

Throughout the first 60 years of operation the UCR program remained virtually unchanged in terms of the data collected and disseminated. In the late 1970s the law enforcement community called for a thorough evaluation of UCR with the objective of recommending an enhanced UCR program to meet contemporary law enforcement needs. The result was the expanded UCR program called the Incident Based Reporting (IBR) system. State Police began reporting Virginia crime data in IBR format in 1999. IBR differs from summary reporting in a number of significant ways.

The number of offenses reported in the IBR system has been expanded to 46 'Group A' offenses:

IBR Group A Offenses and Arrests
Homicide Offenses (3 offenses)
Kidnapping/Abduction
Forcible Sex Offenses (4 offenses)
Robbery
Assault Offenses (3 offenses)
Arson
Extortion/Blackmail
Burglary/Breaking and Entering
Larceny (8 offenses)
Motor Vehicle Theft
Forgery & Counterfeiting
Fraud (5 offenses)
Embezzlement
Stolen Property Offenses
Destruction/Damage/Vandalism of Property
Drug/Narcotics Violations (2 offenses)
Nonviolent Sex Offenses (2 offenses)
Pornography/Obscene Material
Gambling Offenses (4 offenses)
Prostitution Offenses (2 offenses)
Bribery
Weapon Law Violations

There is an additional set of 11'Group B' offenses in the IBR system for which only arrestee information is recorded:

IBR Group B Arrest Offenses
Bad Checks
Curfew/Loitering/Vagrancy Violations
Disorderly Conduct
Driving Under the Influence
Drunkeness
Family Offenses, Nonviolent
Liquor Law Violations
Peeping Tom
Runaway
Trespass of Real Property
All Other Offenses

IBR is an incident-based system of reporting where *all* offenses associated with a criminal incident are reported. For example, in the bank robbery example cited above, the only offense reported in the summary system is criminal homicide. In the IBR system all associated offenses could be reported: motor vehicle theft, robbery, weapons law violation and criminal homicide. Since all offenses associated with a criminal incident are counted in the IBR system the number of offenses reported will increase when compared with the number of offenses reported in the UCR summary system.

As an incident-based system details are recorded about all elements in a criminal incident involving 'Group A' offenses, for example, date-time-locality, demographics of arrestees and victims and offenders, victim injuries, property including drugs involved, weapons, relationship of victim(s)-to-offender(s); 53 separate data elements in all. No incident, offense, property, victim or offender information is recorded for the 'Group B' arrest offenses. The amount of detail that is available in IBR presents a far more sophisticated picture of crime than the summary system.

Use of UCR Data

The State Police publishes tables of IBR crime statistics in an annual compilation called "Crime In Virginia" (http://www.vsp.state.va.us/crimestatistics.htm). The national view of crime is published annually by the FBI in "Crime In The United States" (http://www.fbi.gov/ucr/ucr.htm#cius).

The Department of Criminal Justice Services Criminal Justice Research Center maintains Virginia UCR summary and IBR data in both print and electronic form. The Research Center library contains paper copies of "Crime In Virginia" for the years 1975-2004 and summary data in electronic form from 1986-1999. The State Police

How do Summary Offense Counts Compare to IBR Offense Counts?

The Research Center uses the Hierarchy rule to convert IBR offense data into summary format in order to compare with crime data reported prior to 2000. To convert IBR to summary first all criminal homicides, the most serious crime, are counted. Next, all forcible rape offenses, except those in criminal incidents involving criminal homicide, are counted. Then all robbery offenses, except those in incidents involving criminal homicide and/or forcible rape, are counted. This process continues down the offense hierarchy until the remaining motor vehicle offenses are counted (the motor vehicle offenses not counted would be in criminal incidents involving criminal homicide and/or forcible rape and/or robbery and/or aggravated assault and/or burglary and/or larceny). The results of the conversion of 2004 IBR data to summary data are listed in the table below:

Offense	Count of Reported IBR Offenses	Count of Offenses Converted To Summary Format	Number of IBR Offenses Not Counted In Summary Format	Percentage Difference
Criminal Homicide	392	392	0	0.00%
Forcible Rape	1722	1708	14	0.82%
Robbery	6828	6789	39	0.57%
Aggravated Assault	11204	11127	77	0.69%
Burglary	27640	27316	324	1.19%
Larceny	156228	150393	5835	3.88%
Motor Vehicle Theft	17176	15760	1416	8.98%
Total	221190	213485	7705	3.61%

Data Source: 2004 annual IBR file compiled by Research Center

The table above answers a common question: when the Hierarchy rule is eliminated, how many more crimes are counted using IBR than would have been counted for the same incidents under the summary system? Most of the difference between IBR offense counts and summary format offense counts is found in the higher frequency and less serious offenses of larceny and motor vehicle theft. IBR counts for the more serious violent crimes---forcible rape, robbery and aggravated assault---are each less than 1% higher than the same crimes counted in summary format. Although all offenses in a criminal incident are counted in IBR the total number of IBR offenses is only 3.61% higher than the total number for the same offenses counted in the summary system.

provides the Research Center with a copy of the same monthly file of locality-level IBR crime data submitted to the FBI. The Research Center compiles the monthly IBR data into an annual file and, using methodology defined by the FBI, converts the IBR data into UCR summary format. This is necessary for long-term trending of crime data.

The Research Center also uses statistical methods to estimate any missing or underreported crime data. This is necessary because the converted UCR summary data is also used by the Research Center to allocate '599' and Local Law Enforcement Block Grant funds to localities.

The Research Center data warehouse contains electronic IBR files from 2000 to present (over 2 million criminal incident and 1.4 million IBR arrest records have been compiled so far) as well as IBR data in UCR summary format from 2000 through 2004.

The Research Center uses IBR data to study and report on the changing nature of crime in Virginia. Research projects in-progress include characterizing domestic violence victims and offenders and analyzing trends in drug crime across Virginia. These and other research findings will be published in future editions of this newsletter.

The Research Center regularly provides data and analyses on-request from the Secretary of Public Safety, members of the Virginia General Assembly, the Governor's office and the media. For further information or to request data contact the author at Deborah.Roberts@dcjs.virginia.gov or (804) 786-4612.

●●●

Sources:
UCR Handbook, Federal Bureau of Investigation, 1984.
UCR Handbook, NIBRS Edition, Federal Bureau of Investigation, 1992.
UCR NIBRS, Volume 1, Data Collection Guidelines, Federal Bureau of Investigation, 1998.
Crime In Virginia, Department of State Police, 1999.
Level of UCR Participation by States as of December 2003, U.S. Department of Justice Bureau of Justice Statistics, http://www.ojp.usdoj.gov/bjs/nibrsstatus.htm.

Hurricane Isabel and Crime in Virginia

The author used IBR data to examine crime in the period during and after Hurricane Isabel moved through the state on September 18, 2003. The number of offenses reported statewide in IBR each day in September 2003 was graphed and, for comparison, each day in September for each of the previous two years. The violent 'Group A' offenses examined were Criminal Homicide, Forcible Sex Offenses, Robbery and Aggravated Assault. The 'Group A' property offenses examined were Burglary, Larceny and Motor Vehicle Theft. Only one offense, **Burglary**, showed an increase in the days of Hurricane Isabel compared to the rest of the month and the same time in the previous two years. **Robbery** showed a comparative decrease on and after Hurricane Isabel:
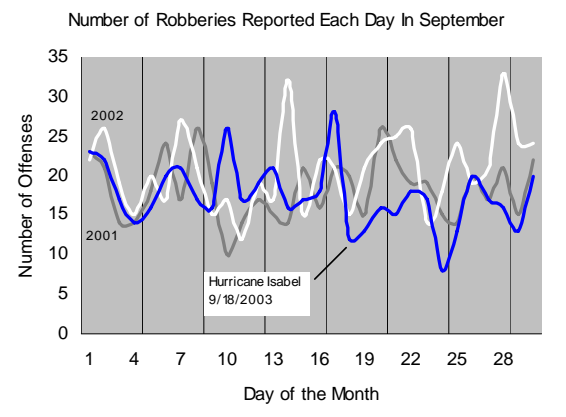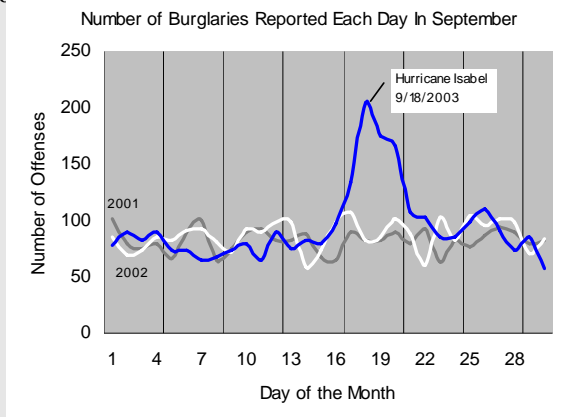
The other violent and property offenses examined showed no significant increase or decrease compared to the previous two years.

Data Source: 2001-2003 annual IBR files compiled by Research Center